

Amendments to the Claims:

1 1. (Currently amended) A method of calculating capacity of an intelligent battery
2 equipped with a current measurement circuit to measure an electric current value on
3 which calculation of battery capacity is based, comprising the steps of:

4

5 (a) sending, from a system to the an SBS-compliant intelligent battery, a notice
6 that it shifts to a low electric power consumption mode, and a consumption electric
7 current value or a consumption electric power value in the low electric power
8 consumption mode unique to the system, when the system using the intelligent battery
9 shifts from a normal operational mode to the low electric power consumption mode,
10 the notice being defined in at least one command selected from among
11 OptionalMfgFunction1 to OptionalMfgFunction5 of SBS ;

12

13 (b) performing subtraction of capacity data of the intelligent battery based on
14 the received consumption electric current value or consumption electric power value
15 in the low electric power consumption mode, and disabling capacity calculation by the
16 current measurement circuit;

17

18 (c) sending, from the system to the intelligent battery, a notice of shifting to the
19 normal operational mode, and stopping the subtraction of capacity data based on the
20 consumption electric current value or consumption electric power value in the low
21 electric power consumption mode, and enabling capacity calculation by the current
22 measurement circuit, when the system using the intelligent battery shifts from the low
23 electric power consumption mode to the normal operational mode.

1 2. (Previously Amended) The method of calculating capacity of an intelligent
2 battery according to Claim 1, wherein said low electric power consumption mode is
3 a soft-off state or a suspended state.

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3 (Canceled).

1 4 (Original) The method of calculating capacity of an intelligent battery according to
2 Claim 1,

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4 wherein, in the low electric power consumption mode:

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6 (a) on detecting that the intelligent battery is drawn out of the system, the
7 subtraction of capacity data based on the received consumption electric current value
8 or consumption electric power value in the low electric power consumption mode is
9 stopped;

10

11 (b) next, on detecting that the intelligent battery is connected to the system, the
12 battery counts time from the connection; and

13

14 (c) when the system using the intelligent battery shifts from the low electric
15 power consumption mode to the normal operational mode:

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17 (i) the system sends a notice is sent to the effect that it is reconnected
18 to the intelligent battery and also sends the consumption electric current value
19 or consumption electric power value in the low electric power consumption
20 mode unique to the system;

21

22 (ii) capacity to be subtracted from reconnection is calculated from the
23 received consumption electric current value or consumption electric power
24 value and the counted time, and the calculated capacity to be subtracted is
25 subtracted from the capacity data; and

26

27 (d) next, a notice is sent from the system to the intelligent battery to the effect

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28 that it shifts to the normal operational mod and also the subtraction of capacity data
29 based on the consumption electric current value or consumption electric power value
30 in the low electric power consumption mode is stopped, and capacity calculation by
31 the current measurement circuit is enabled on the other hand.

1 5 (Original) The method of calculating capacity of an intelligent battery according to
2 Claim 1,

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4 wherein, in the low electric power consumption mode:

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6 (a) on detecting that the intelligent battery is drawn out of the system, that the
7 intelligent battery stops the subtraction of capacity data based on the consumption
8 electric current value or consumption electric power value received in the low electric
9 power consumption mode;

10

11 (b) next, on detecting that the intelligent battery is connected to the system:

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13 (i) the system recognizing the connection sends a notice to the effect that
14 it is reconnected to the intelligent battery and also sends the consumption
15 electric current value or consumption electric power value in the low electric
16 power consumption mode unique to the system;

17

18 (ii) the intelligent battery resumes subtraction of capacity data based on
19 the received consumption electric current value or consumption electric power
20 value in the low electric power consumption mode, and disables capacity
21 calculation by the current measurement circuit on the other hand;

22

23 (c) when the system using the intelligent battery shifts from the low electric
24 power consumption mode to the normal operational mode, the system sends a notice

25 to the battery that it shifts to the normal operational mode and also stops the
26 subtraction of capacity data based on the consumption electric current value or
27 consumption electric power value in the low electric power consumption mode, and
28 enables capacity calculation by the current measurement circuit on the other hand.

6 (Canceled).

1 7 (Withdrawn) An intelligent battery for use with a portable electronic device having a
2 first system component for operating with supplied electric power in a normal
3 operational mode but not operating with no supplied electric power in the low electric
4 power consumption mode, and a second system component for operating with
5 supplied electric power both in the normal operational mode and in the low electric
6 power consumption mode, and a controller for supplying electric power to said first and
7 second system components in the normal operational mode and supplying electric
8 power to said second system component and stopping supply of electric power to said
9 first system component in the low electric power consumption mode, comprising:

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11 (a) a timer;

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13 (b) a mode shift notice receiving unit for receiving a mode shift notice indicating
14 a shift from the normal operational mode to the low electric power consumption mode
15 or a shift from the low electric power consumption mode to the normal operational
16 mode and a consumption electric current value or a consumption electric power value
17 in the low electric power consumption mode unique to the second system component;

18

19 (c) a unit for calculating capacity data to be subtracted based on a period of the
20 low electric power consumption mode after shifting to the mode measured by the timer
21 and the received consumption electric current value or consumption electric power
22 value in the low electric power consumption mode.

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1 8 (Withdrawn) An intelligent battery for use with a portabl electronic device having a
2 first system component for operating with supplied electric power in the normal
3 operational mode but not operating with no supplied electric power in the low electric
4 power consumption mode, and a second system component for operating with
5 supplied electric power both in the normal operational mode and in the low electric
6 power consumption mode, and a controller for supplying electric power to said first and
7 second system components in the normal operational mode and supplying electric
8 power to said second system component and stopping supply of electric power to said
9 first system component in the low electric power consumption mode, comprising:

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11 (a) a timer;

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13 (b) a mode shift notice receiving unit for receiving a mode shift notice indicating
14 a shift from the normal operational mode to the low electric power consumption mode
15 or a shift from the low electric power consumption mode to the normal operational
16 mode and, based on a consumption electric current value or a consumption electric
17 power value in the low electric power consumption mode unique to the second system
18 component calculated on the system side, consumption battery capacity data assumed
19 to be consumed during the low electric power consumption mode;

20
21 (c) a unit for calculating capacity data to be subtracted based on a period of the
22 low electric power consumption mode after shifting to the mode measured by the timer
23 and the received consumption battery capacity data in the low electric power
24 consumption mode.

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1 9 (Currently amended) A portable electronic device, comprising:

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(a) a first system component for operating with supplied electric power in the normal operational mode but not operating with no supplied electric power in the low electric power consumption mode;

(b) a second system component for operating with supplied electric power both in the normal operational mode and in the low electric power consumption mode; and

(c) a controller for:

(i) performing control to supply electric power to said first and second system components, and supply electric power to said second system component and stop supply of electric power to said first system component in the low electric power consumption mode;

(ii) when shifting from the normal operational mode to the low electric power consumption mode, sending to an SBS-compliant intelligent battery a notice of shifting to the low electric power consumption mode and also sending a consumption electric current value or a consumption electric power value unique to the system, the notice being defined in at least one command selected from among OptionalMfgFunction1 to OptionalMfgFunction5 of SBS, and

(iii) when shifting from the low electric power consumption mode to the normal operational mode, sending from the system to the intelligent battery a notice of shifting to the normal operational mode; and

said intelligent battery characterized by :

(iv) in the low electric power consumption mode, performing subtraction

32 of capacity data based on the received consumption electric current value or
33 consumption electric power value in the mode, and disabling capacity
34 calculation on the current measurement circuit on the other hand;

35

36 (v) when shifting from the low electric power consumption mode to the
37 normal operational mode, stopping the subtraction of capacity data based on
38 the consumption electric current value or consumption electric power value in
39 the low electric power consumption mode, and enabling capacity calculation by
40 the current measurement circuit on the other hand.

1 10 (Currently amended) A portable electronic device, comprising:

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3 (a) a first system component for operating with supplied electric power in a
4 normal operational mode but not operating with no supplied electric power in a low
5 electric power consumption mode;

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7 (b) a second system component for operating with supplied electric power both
8 in the normal operational mode and in the low electric power consumption mode; and

9

10 (c) a controller for:

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12 (i) performing control to supply electric power to said first and second
13 system components, and supply electric power to said second system
14 component and stop supply of electric power to said first system component in
15 the low electric power consumption mode;

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17 (ii) when shifting from the normal operational mode to the low electric
18 power consumption mode, sending from a system to an SBS-compliant
19 intelligent battery a notice of shifting to the low electric power consumption

20 mode and also sending consumption battery capacity data assumed to be
21 consumed during the low electric power consumption mode based on a
22 consumption electric current value or a consumption electric power value in the
23 low electric power consumption mode unique to the second system component
24 calculated on the system side, the notice being defined in at least one
25 command selected from among OptionalMfgFunction1 to
26 OptionalMfgFunction5 of SBS, ; and

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28 (iii) when shifting from the low electric power consumption mode to the
29 normal operational mode, sending from the system to the intelligent battery a
30 notice of shifting to the normal operational mode; and

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32 said intelligent battery characterized by:

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34 (iv) performing subtraction of the capacity data based on the received
35 consumption battery capacity data in the low electric power consumption mode,
36 and disabling capacity calculation on the current measurement circuit on the
37 other hand;

38
39 (v) when shifting from the low electric power consumption mode to the
40 normal operational mode, stopping the subtraction of capacity data based on
41 the consumption current capacity data in the low electric power consumption
42 mode, and enabling capacity calculation by the current measurement circuit on
43 the other hand.